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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/516,111	03/01/2000	Keisuke Mitani	35.C14321	3018

5514 7590 10/06/2003

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EXAMINER

TRAN, DOUGLAS Q

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 10/06/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/516,111

Applicant(s)

MITANI, KEISUKE

Examiner

Douglas Q. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-2, 4-7, 9-12, and 14-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Nagao et al. (US Patent No. 6,100,998).

As to claim 1, Nagao teaches a printing control apparatus comprising
plural expansion processing means (4 in fig. 1) for expanding printing data of a predetermined format (intermediate data) to image data of a format to be output to a printer, by a segment (col. 7, lines 38-40: the rasterizing processing unit has a plurality of means for processing the different type of input data from the intermediate data for each band);

calculation means (i.e., 5 in fig. 1) for calculating, before the expansion processing is performed by the expansion processing means, a processing time (i.e.,

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rasterizing processing time) necessary to expand the printing data to the image data for each segment (col. 7, lines 61-61-67: the rasterizing time predicting unit for predicting the rasterizing time for each band ; and

scheduling processing means (i.e., the output control unit 6 in fig. 1) for scheduling the expansion processing for each segment by the plural expansion processing means, based on the time calculated by the calculation means (col. 8, lines 1-12: under control of the output control unit 6, the rasterizing data from each band of the band buffer memories is outputted).

As to claim 2, Nagao disclose every feature discussed in claim 1, and further teaches comprising transfer means for transferring the expanded image data to the printer (517 in fig. 25), and wherein the scheduling processing means further comprises judgment means for judging for each segment whether or not the expansion processing is to be performed by the expansion processing means before the transfer of the image data is started, based on the time calculated by the calculation means (please see fig. 19 for processing from intermediate data per band to rasterizing time before established the order of band for printing or transferring).

As to claim 4, Nagao discloses every feature discussed in claim 1, and further teaches reception means for receiving output data from a data processing apparatus; and conversion means for converting the received data into the printing data of the predetermined format (col. 7, lines 13-20).

As to claim 5, Nagao discloses every feature discussed in claim 1, and further teaches wherein the printing data of the predetermined format is intermediate data of a format classified for each band (col. 7, lines 27-33).

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As to claims 6-7, 9-10, Nagao teaches steps for performing the apparatus claims 1-2, 4-5 as indicated above.

As to claims 11-12, 14-15, Nagao teaches instructions for performing the apparatus claims 1-2, 4-5 as indicated above.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3, 8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Nagao and Watts et al. (US Patent No. 6,559,971).

As to claim 3, Nagao discloses every feature discussed in claim 2.

However, Nagao teaches compression means for compressing the expanded image data for the segment to which it was judged by the judgment means that the expansion processing is to be performed by the expansion processing means before the transfer of the image data is started.

Watts teaches compression means for compressing the expanded image data (i.e., rasterizing data) for the segment to which it was judged by the judgment means that the expansion processing is to be performed by the expansion processing means before the transfer of the image data is started (col. 3, lines 43-47).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the image processing system of Nagao for compressing

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the expanded image data (i.e., rasterized image data) before transferring to the printing unit as taught by Watts. The suggestion for modifying the system of Nagao can be reasoned by one of ordinary skill in the art as set forth above by Watts because the modified systems would improve the capacity of the buffer memory to be compacted when storing the small amount of the compressed image data.

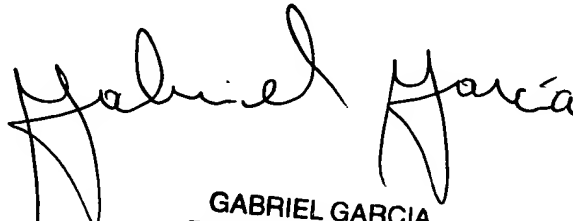
As to claims 8 and 13, Nagao and Watts teaches the method and instructions for performing the apparatus claim 3 as indicated above.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas Q. Tran whose telephone number is (703) 305-4857 or E-mail address is Douglas.tran@uspto.gov.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

Douglas Q. Tran
Sep. 25, 2003


GABRIEL GARCIA
PRIMARY EXAMINER